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This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1-3. (Cancelled)

4. (Previously presented) A method for diagnosing Alzheimer's disease comprising:

(a) obtaining blood or cerebrospinal fluid from a subject;

(b) detecting the amount of human kallikrein 6 ("hK6") in said blood or cerebrospinal fluid; and

(c) comparing said amount of hK6 detected to an amount for healthy control subjects, where detection of a statistically significant increase of hK6 compared with an amount for the healthy control subjects is indicative of Alzheimer's disease.

5. (Currently amended) A method for diagnosing Alzheimer's disease as claimed in claim 4 comprising:

(a) contacting the blood or cerebrospinal fluid with an antibody specific for hK6 which is directly or indirectly labelled with a detectable substance;

(b) [quantifying] detecting the amount of hK6 by detecting the detectable substance in [the] the blood or cerebrospinal fluid;

(c) comparing the [quantitated level] amount of hK6 to [levels] an amount obtained for samples from healthy control subjects where a statistically significant increase in the amount of hK6 [levels] compared with [levels] the amount for the healthy control subjects is indicative of Alzheimer's disease.

6. (Currently amended) A method for the diagnosis [and monitoring] of Alzheimer's disease as claimed in claim 4 comprising

(a) incubating the blood or cerebrospinal fluid with a first antibody specific for hK6 which is directly or indirectly labeled with a detectable substance, and a second antibody specific for hK6 which is immobilized;

(b) separating the first antibody from the second antibody to provide a first antibody phase and a second antibody phase;

(c) [quantitating] detecting the amount of hK6 by detecting the detectable substance in the first or second antibody phase; and

(d) comparing the amount of [quantitated] hK6 with an amount [quantitated levels] obtained for samples from healthy control subjects where a statistically significant increase in the amount of hK6 levels compared with [levels] the amount for the healthy control subjects is indicative of Alzheimer's disease.

7–8. (Cancelled)

9. (Previously presented) A method as claimed in claim 6 wherein in step (a) the first and second antibodies are contacted simultaneously or sequentially with the blood or cerebrospinal fluid.

10. (Previously presented) A method as claimed in claim 5 wherein the antibody is a monoclonal antibody, a polyclonal antibody, immunologically active antibody fragments, humanized antibody, an antibody heavy chain, an antibody light chain, a genetically engineered single chain $F_v$ molecule, or a chimeric antibody.

11. (Previously presented) A method as claimed in claim 5 wherein the detectable substance is alkaline phosphatase.

12. (Previously presented) A method as claimed in claim 11 wherein the alkaline phosphatase is detected using a fluorogenic substrate.

13. (Previously presented) A method as claimed in claim 12 wherein hK6 is detected using time-resolved fluorescence.

4/12/05 DC

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1-3. (Cancelled)

1 4. (Currently amended) A method for diagnosing Alzheimer's disease comprising:

(a) obtaining blood or cerebrospinal fluid from a subject;

(b) ~~detecting~~ determining the amount of human kallikrein 6 ("hK6") in said blood or cerebrospinal fluid; and

(c) comparing said amount of hK6 detected to an amount for healthy control subjects, where detection of a statistically significant increase of hK6 compared with an amount for the healthy control subjects is indicative of Alzheimer's disease.

2 5. (Currently amended) A method for diagnosing Alzheimer's disease ~~as claimed in claim 4~~ comprising:

(a) obtaining blood or cerebrospinal fluid from a subject;

(a b) contacting the blood or cerebrospinal fluid with an antibody specific for hK6 which is directly or indirectly labelled with a detectable substance;

(b c) ~~detecting~~ determining the hK6 by measuring the amount of the detectable substance in the blood or cerebrospinal fluid;

(c d) comparing the amount of hK6 to an amount obtained for samples from healthy control subjects where a statistically significant increase in the amount of hK6 compared with the amount for the healthy control subjects is indicative of Alzheimer's disease.

7 6. (Currently amended) A method for the diagnosis of Alzheimer's disease ~~as claimed in claim 4~~ comprising:

(a) obtaining blood or cerebrospinal fluid from a subject;

(~~a~~ b) incubating the blood or cerebrospinal fluid with a first antibody specific for hK6 which is directly or indirectly labeled with a detectable substance, and a second antibody specific for hK6 which is immobilized;

(~~b~~ c) separating the first antibody from the second antibody to provide a first antibody phase and a second antibody phase;

(~~c~~ d) ~~detecting~~ determining the hK6 by measuring the amount of the detectable substance in the first or second antibody phase; and

(~~d~~ e) comparing the amount of hK6 with an amount obtained for samples from healthy control subjects where a statistically significant increase in the amount of hK6 levels compared with the amount for the healthy control subjects is indicative of Alzheimer's disease.

7–8. (Cancelled)

8 ~~9.~~ (Currently amended) A method as claimed in claim ~~6~~ 7 wherein in step [[(a)]] (b) the first and second antibodies are contacted simultaneously or sequentially with the blood or cerebrospinal fluid.

3 ~~10.~~ (Previously presented) A method as claimed in claim ~~5~~ 2 wherein the antibody is a monoclonal antibody, a polyclonal antibody, immunologically active antibody fragments, humanized antibody, an antibody heavy chain, an antibody light chain, a genetically engineered single chain $F_v$ molecule, or a chimeric antibody.

4 ~~11.~~ (Previously presented) A method as claimed in claim ~~5~~ 2 wherein the detectable substance is alkaline phosphatase.

5 ~~12.~~ (Previously presented) A method as claimed in claim ~~11~~ 4 wherein the alkaline phosphatase is detected using a fluorogenic substrate.

6 ~~13~~. (Previously presented) A method as claimed in claim ~~12~~ 5 wherein hK6 is detected determined using time-resolved fluorescence.

14-15. (Cancelled)